



PROBLEMS AND PROSPECTS FOR SUGARCANE GROWERS IN INDIA: AN EMPIRICAL STUDY

Mrs. Sanju Kumari Dhancholia

Ph.D Research Scholar, Department of Commerce, Ravenshaw University, Cuttack.

ABSTRACT

The Sugarcane cultivation is the most organized sector of farming, which is directly linked to the sugar industry and plays an eminent role in the economic life of India. The Sugarcane growers have a great significance to the agricultural and industrial economy of the rural region of India. It is the feeder for agro based industry like sugar and located in rural areas. The sector has served as an instrument for carrying progressive trends of rural areas. The most outstanding feature of this sector is that it is a link between the factory and the cultivators, whose interest and well being are interdependent. The fundamental problem of the sugarcane grower is that there is no relation between the price of raw material i.e., sugarcane and its finished good i.e., sugar. In almost all the major sugar producing countries of the world the price of cane paid to the farmers depends on the realization from sugar. The basic problem confronting the cane growers is to meet the high cost of cultivation. This problem is aggravated by the unreasonable statutory price paid for the cane by the sugar mills. High cost of cultivation and the low price fixed for the cane supply is not, however, the only problem of cane growers but marketing and financial problems are also becoming very acute.

KEY WORDS: Statutory Minimum Price, Sugar Industries, Sugar Cane, Sugar Cane Farmers.

INTRODUCTION:

The Sugar industry is the second largest organized industry next to textile industry which plays an eminent role in the economic life of India. The Sugar industry has a great significance in its relation to the agricultural and industry economy of the rural region of India. The sugar industry is an agro based industry, located in rural areas. The industry has served as an instrument for carrying progressive trends in rural areas. The most outstanding feature of the industry is that it is a link between the factory and the cultivators, whose interest and well being are interdependent. The Sugar industry is seasonal in nature and directly dependent on the monsoon for availability of adequate Sugarcane. India is the largest consumer and second largest producer of Sugar in the world, contributing over 15 percent of the world's Sugar production through over 500 Sugar factories situated in different parts of the country. The Sugar industry also provides valuable by-products like molasses and press mud. The availability of these by-products has led to setting up of alcohol / ethanol / co-generation of power and organic manure plants.

The Sugar industry in India plays a vital role in the socio-economic development in the rural areas by mobilizing rural resources and generating higher income and employment opportunities. Over 5 Crore farmers and their families besides a large mass of agriculture labour are involved in sugarcane cultivation and its harvesting operations. The growth of sugar industry has a distinct impact on the rural economy. The integrated sugar industry (comprising sugar, Alcohol and Molasses) enjoys an annual turnover of about Rs. 50,000 Crores and contributes about Rs. 3,000 Crores in the Central Government Exchequer by way of central excise duty every year, beside state taxes on sugarcane and hefty taxes collected by state as excise and VAT on sale of spirit in the state which run into an estimated Rs. 10,000 Crores annually. Besides the direct taxes, income tax is additional source of revenue to the government from the sugarcane industry. The sugar industry accelerates rural development through farm employment as well as business opportunities in transport and communication.

There has been a sharp decline in sugarcane production in the country. Consequently, the sugar prices plunged to such unprecedented low levels that the better lines of most of the sugar factories turned red and they were not able to pay even the cane price. Added to it, there was a sharp increase in the statutory minimum price (SMP) of most agricultural commodities. Consequently the sugarcane farmers shifted to cultivation of other remunerative crops and the sugarcane production came down. There was no Government control over price and distribution despite higher losses of sugar because of processing of Gur and Khandasari. Considering the increasing demand for sugar, on account of increasing population, increasing purchasing power of the people and increasing demand for sugar by confectionaries and beverages industries and other fast food items, the production of sugarcane will have to be enhanced substantially. This can be done only by increasing the yield and recovery from sugarcane and thereby increasing the per hectare production of sugarcane.

India's yield of sugarcane during the last 15 years has been varying between 59.4 – 71.3 tonnes per hectare. Compared to international standard this is very low. There is an urgent need to increase the average sugarcane yield to 100 tonnes per hectare. Likewise, the recovery rate of sugar from sugarcane in India during the last 15 years has been between 9.42 – 10.55 percent which is also very low as compared to the recovery rate achieved by other major sugarcane producing coun-

tries in the world. It should also increase the average sugar recovery rate, substantially so as to meet the increasing demand for sugar. The fundamental problem of the Indian sugar Industry is that there is no relation between the price of raw material i.e., sugarcane and its finished good i.e., sugar. In some states the cane price is fixed unreasonably high by the State Government. Sugar price is regulated by the Union Government through varieties of measures including regulation of monthly release and control in international trade. Such illogical intervention of the State Government causes a wide economic dislocation in the sugar industry.

In almost all the major sugar producing countries of the world the price of cane paid to the farmers depends on the realization from sugar. The Central Government thus should seriously take up the matter of sugarcane pricing which should be linked to sugar price and State Government intervention should be dispensed with. The Government took the right steps in announcing the SMP and State Government intervention were effectively removed by making them responsible if they fix any price over and above SMP. However under political pressure such a move was dropped. The well designed Bhargana Formula which states that wherever there is extra realization over SMP the same should be shared, equally between the farmers and factory.

The Government procures levy sugar at a fixed price for distribution to below poverty line family (BPL family). It is an established fact that by definitions the BPL families cannot even afford rice and wheat which are more essential than sugar. It is interesting to note that the Government has not revised the levy sugar price since 2003-04; although during that period cost of production including sugarcane has increased by more than 150%. The levy sugar price is so low that a sizable quantity of levy sugar lifted by the State Government nominee is diverted by unscrupulous traders in the open market and hardly anything goes to the concerned poor family. As such industry demands that Government should directly procure sugar from the open market like other crops and sell to the BPL consumers as it is their responsibility and the industry should not be compelled to extend subsidy. Sugar is the only commodity which is being subsidized by industry and not by Government of India.

Most of the problems being faced by the Indian Sugarcane Industry today have emanated from the fact that it is the only industry which is operating in antithesis to the liberalized economic policy adopted and followed by the country. The various controls viz, in the matter of pricing, releases, packing etc to which the sugar industry is subjected to, have smothered the growth of the industry. Because of these controls most of the time the sugar prices have gone below the cost of production. A liberalized economic necessitates a competitive environment and this will be possible only if the industry is completely decontrolled. Decontrol could give the industry the much needed freedom to explore the market and sell sugar, ethanol, co-generated power, press mud and other downstream products in keeping with the needs of the market sentiments and financial gains. It will make the sugar factories viable on a regular basis instead of sporadic periods of volatility. It will also make it possible to establish a more direct link between the price of sugarcane and the finished product and enable the sugar industry to be globally competitive.

The basic problem confronting the cane growers is to meet the high cost of cultivation. This problem is aggravated by the unreasonable statutory price paid for

the cane by the sugar mills. High cost of cultivation and the low price fixed for the cane supply is not, however, the only problem of cane growers. Marketing and financial problems are also becoming very acute.

REVIEW OF LITERATURE:

It has already been pointed out that the sugar industry being the second largest organized industry in India plays a vital role in its economy. It is situated in the rural area owing to the highly perishable nature of the raw material i.e. sugarcane. The agro industry has a deep impact on the rural economy. With the development in agriculture it is felt necessary to start and promote related agro industry, because they not only convert the agricultural goods into finished product but also increase their value.

Till now, a number of researchers have worked on sugar industry. In these research works they have studied various aspects such as development, problems and prospects of the industry. Similarly, Government policy and regional planning for sugar industry area, labour situation of the industry, impact of the industry on the lives of farmer's and agriculture, the importance of sugar factories in the rural economy and such other aspects of the industry also have been studied. A brief review of the work done so far in this context is given below:

V. Sharmugam & Nazir. A. Moulvi (2009) in their article explained that the trigger could be pulled at both the upper and lower end of the price band that would have more avenues to divert cane for its best possible use, and during a shortfall the international markets could be tapped to augment domestic supplies. This will help the Indian sugar industry achieve a sustainable growth and improve the livelihoods of farmers besides tapping alternative business opportunities.

Harish Damodaran (2009) in his article stated that with dwindling cane supplies leading to low capacity utilization and premature shutdown of plants, sugar mills in Uttar Pradesh are now offering farmers an extra Rs. 15 a quintal to induce them to plant more area under the crop.

Ajay Modi (2009) in his article pointed out that the country sugar output in the season ending September 30 is likely to touch a four year low of 14.5 million tonnes. This is a decline of over 45% from the 16.5 million tonnes last season. The fall can be attributed to lower acreage under sugarcane and an over 10% drop in recovery.

Deepak Jainani (2009) in an article pointed that while the millers have been forced to buckle under the incessant and prolonged protests of farmers, revising their earlier stand of sticking to the fair and remunerative price (FRP) of Rs. 129.80 as declared by the centre to that of adhering to the State Advised price (SAP) of Rs. 165-170, and then declaring additional incentive of Rs. 15/- quintal, farmers are still not happy.

Prabha Jagannathan (2009) in her article stated that the retail price of sugar has touched Rs. 28.50 / kg in parts of the country, and is set to cross Rs. 30/kg according to the trade trend. The reason is a shortage of cane which has seen its price climb to more than double the statutory minimum price (SMP) of Rs. 81.50 per quintal. The acute short supply of cane meant that the crushing season started this year only in November instead of October.

M.R. Subramani (2008) in his article stated that "Due to lower prices for sugar and delay in getting their payment, farmers have switched over to other crops". Soya bean and maize are the crops that have gained from the switchover. Though statistics show that last year, area under sugar was up at 51.04 lakh hectare against 48.3 lakh hectares the previous year, the loss seen is in view of some farmers selling sugarcane as fodder.

Aarati Chrisehaan (2008) in his article stated that ten years after the Mahajan committee argued strongly for decontrol of the sugar sector and five years after an actual announcement about decontrol was made in 2003, the subject is once again in the news, with recent reports suggesting that the cabinet will soon be approached with a set of proposals which may take effect in the sugar season beginning October 1.

P Datta (2008) in his article stated that the Government's proposal on sugar decontrol and the decision to do away with release order is heartening as the freedom to get a remunerative price was effectively curbed by taking a timely decision. The crucial regulations that decide the industry fortune are the Governments setting minimum cane procurement prices and the location policy, with its two – way binding on the sugar farmers and the mills to sell and buy cane from each other.

Suresh Kumar (2006) in his article pointed out the sugar industry with strong rural linkage provides employment directly and indirectly to more than five lakh skilled and unskilled workmen from rural areas. This sector also contributes an estimated Rs. 16000 crore annually to the Centre and State exchequers.

Economic times (2006) in their editorial stated that the E U and Brazil together contribute around 45% to the total world exports. Indian sugar companies are among the lowest cost producers and with EU deciding to reduce subsidy, domestic players are expected to play a crucial role on meeting the global sugar

demand.

Anindam Saha (2005) observes that the commodity market is quietly anticipating a big bang more in sugar, one of the most politically sensitive items. Traders are betting that coming September sugar trade in the country would be free from the clutches of the Government. If the present system of monthly release mechanism is withdrawn then a future trading in sugar is poised to get a leg up.

R. Jagadeswaran (2004) in his article explained that the sugar industry in India is one of the important Agro-based industries. Next to textiles it is the biggest industry employing 3.7 lakh workers and sustaining about 3.9 crore agriculturists who are engaged in the production of sugarcane. Some sugarcane companies should be identified on the basis of their dependability of quality production and correct packing standards and their entire production should be utilized for export.

P.S. Rangi and M.S. Sidhu (2002) in their article dealt with the hurdles faced by the sugar mills in Punjab. The ultimate solution has been in total decontrol and privatization of the sugar industry. The reassert sea-post for Punjab within the country is in Gujarat and Maharashtra because of which the exporters have to bear high transportation cost. Government control over sugar industry is another bottleneck.

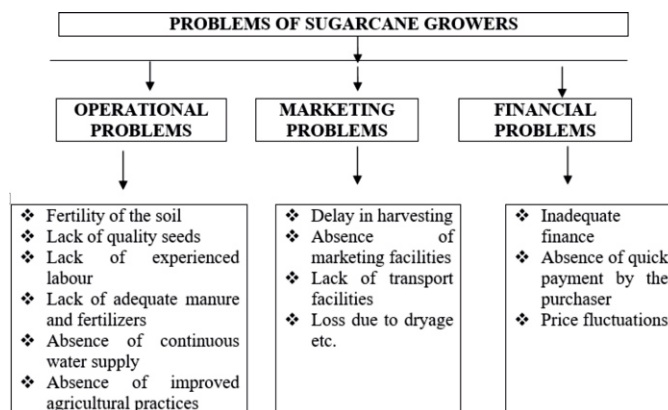
Lal (1985) reported from Indian Institute of sugarcane Research, Lucknow that for bringing stability of sugarcane productivity in eastern and western U.P, proper distribution of fertilizers, adequate irrigation facilities and suitable measures for plant protection are essential. Besides these factors, there is also an urgent need for up-gradation and transfer of sugarcane production technology.

Chauhan and others (1974) reported from Rajasthan that introduction of commercial crops has brought down the cropping intensity significantly on the large and medium size farms.

Dutt (1950) has pinpointed in his survey report that variation in cane acreage were governed by the relative price of sugarcane and seasonal conditions at the time of sowing.

PROBLEMS OF SUGARCANE GROWERS:

The basic problem confronting the cane growers is to meet the high cost of cultivation. This problem is aggravated by the unreasonable statutory price paid for the cane by the sugar mills. High cost of cultivation and the low price fixed for the cane supply is not, however, the only problem of cane growers. Marketing and financial problems are also becoming very acute. The problem which the cane growers encounter can be examined under the following three heads:



1. OPERATIONAL PROBLEMS:

1.1 Fertility of the Soil: Regarding the poor fertility of the soil perhaps the farmers have to be blamed for this partly. Due to continuous cultivation and raising of more crops over a period of time the fertility of the soil gets depleted. It can be replenished by following the principle of rotation of crops and leaving alternative pieces of land fallow so that the soil gets rested during at least one season. The degree of fertility of the soil can also be restored by adding additional doses of manures and chemical fertility over a long period. But nothing of that sort is being done now. The average Indian farmer cannot leave the piece of land fallow as his holding itself is small, being at subsistence level. Besides, the farmer himself leads a subsistence living with no surplus in his hand; the farmer will not be in a position to invest additional funds on manures and fertilizers. He can do so only if timely and adequate external finance is available. But here again the problem is that neither the finance is available in time, nor he has the capacity to repay such a loan promptly. As a result, the fertility of the soil cannot be improved.

1.2 Lack of quality seeds: As far as this problem is concerned, it is a known fact that unless quality seeds are used the crop is bound to suffer in terms of yield. Ironically enough, even with a plethora of Governmental and Semi-Governmental seed supply agencies, the farmer is not getting quality seeds. With better seeds, better agricultural practices and with other farm inputs, the yield can be

increased. The usual practice with many farmers is to make use of a part of the cane raised by them as seeds. Quite often the cane being of a poor quality, the seeds also will be of a low quality. The ultimate net result is that the crop also suffers deterioration in quality. Thus the farmer is caught in the cobweb of low quality seeds and low yield. This may not be a serious problem for a ration crop. Besides the farmers are not getting good quality seeds at reasonable prices and on time, from the Government supply depots due to bureaucratic and corrupt practices of these agencies.

1.3 Lack of Experienced Labour: The availability of labour is also an acute problem. Cane cultivation all through the cropping period requires skilled labour for various operations and there is a dearth of such skilled labour. Of late, in the rural areas there is abnormal labour mobility. Much of the labour force is either migrating to nearby cities and towns in search of better avenues of earning or to other farms where the farm operation are not as difficult as working on cane farms. Land Reforms made some agricultural labourer owners of land. Abolition of hereditary system of labour engagement, liquidation of the bonded labour also resulted in changing attitudes of the labourer in being little free so far as his daily work is concerned. There is unemployment and under employment in the rural sector, yet suitable and sufficient labour force is not available for cane cultivation. Not only skilled labour is available to the extent required, but also the wage rates to be paid for available labour is high and often beyond the reach of an average farmer. Considering the phenomenal increase in the cost of living and unprecedented rise in price of daily necessity, the wages demanded by the labourers do not appear to be high. But considering the paying capacity of the farmer specially in the context of a big fall in market price of agricultural commodities, the prevailing wage rates are very much beyond the capacity of the farmer.

1.4 Lack of adequate Manures and Fertilizers: Quite often, the farmer faces the problem of inadequacy of manures and fertilizers. This is due to non-availability of chemical fertilizers in time, and the poor purchasing capacity. Non-availability of the fertilizers is due to the following reasons:

- Defective distribution systems
- Failure on the part of the co-operatives to maintain regular supply and
- Hoarding by unscrupulous private dealers expecting better price.

Due to these reasons, timely availability of the required quality and quantity of fertilizers is not assured to the farmers.

1.5 Absence of continuous water supply: Sugarcane cultivation needs regular supply of large quantity of water all through the crop period. It can be grown only under the conditions of assured irrigational facility. Irrigation may be of channel, tank or well. Whatever may be the type of irrigation, two essential factors are present viz.,

- Availability of sufficient water and,
- Proper water management.

Availability of sufficient water depends upon more than one factor. Perhaps the most important factor is sufficient rain fall. As far as the water management is concerned, it is said to be poor due to two reasons, viz.,

- The personal in charge of water management not being practical agriculturists are not in a position to understand the implication of poor water management.
- Many farmers lack the basic knowledge of proper water management, particularly in the matter of even utilization of water and conserving water for the subsequent crop. This is related to the principles of scientific farming.

1.6 Absence of improved agricultural practices: Despite the green revolution and a massive investment on agriculture and its development and a keen interest shown by the Government not only in the development of the agriculture but also disseminating technological agriculture know-how to the rural areas by means of education, extension still much of the agriculture in India is tradition bound and based on subsistence farming, with more than 75 percent of the country's population still living in rural areas and depending on agriculture for their living. For many of the farmers' agriculture is not a profession but a way of living. So much so, farmers are resistant to changes in the methods of agriculture. Hence, they are slow in transforming the traditional agriculture into scientific agriculture or the subsistence agriculture into commercial agriculture. Even the very idea of such conversion is not convincing to them as their attitudes and beliefs are different. Besides, the village economy also exerts a greater influence on the attitudes of the farmers and in changing their agriculture practices.

Unless traditional agriculture is converted into scientific agriculture, the farmer has no hope of survival and a farm holding will not be a commercially viable unit. Initially the scientific agriculture results in high cost. Therefore the question here is whether an ordinary Indian farmer can afford to meet such a high cost especially when his farm produce fails to fetch him remunerative prices. Unless the farmer gets remunerative prices for his produce, he cannot invest more on his land to adopt modern methods of agriculture.

2. Marketing Problems:

2.1 Delay in harvesting:

After raising the crop and when it is to be harvested, the farmer faces the problem of harvesting and marketing. If he crushes the cane to manufacture jaggery he will harvest the cane according to his convenience. In fact if that is so he may not face any difficulty in harvesting. But he will have the problem of only marketing the jaggery. But in a majority of the cases the farmers have entered into contractual obligations with factories for supply of cane. Here the problem is that the farmer cannot harvest the crop as and when he likes. He can do it only as per the directions of the factory. Since the factory may have its own crushing schedules it may not be in a position to purchase the cane when the farmer wishes to harvest and sell it. Hence there is no option but to delay the harvest.

Delay in harvesting, for whatever the reason, gives rise to some other problems, viz.

- Loss of cane due to theft, fire and destruction by animals
- Loss of sucrose content if the cane ripens much earlier than required and is allowed to stand on the field beyond the normal period. If the crop is allowed to stay in the same position it gets dried up progressively.
- If harvesting is delayed, there is bound to be loss in weight of the cane and there will be a monetary loss to the farmer.

2.2 Absence of marketing facilities:

Sugarcane as an agriculture commodity has a limited market and a few purchasers. The demand for the cane is not universal and all through the year. The channels of marketing are primarily two, viz.

- Supply to the factories and
- Supply to the crushers for manufacturing jaggery.

The minor channels are, seeds and for chewing purpose or to extract cane juice to be used as beverage. Statistical data indicated that between 85 to 90 percent of the total cane is being used for sugar and jaggery production. It shows the importance of cane usage for sugar and jaggery manufacturing.

Table 1 indicates the all India picture of cane utilization for various purposes.

Utilization of sugarcane for different purposes in India:

Now a day's sugarcane is being utilized for so many purposes. Among them there are a few which are more important and especially in a country like India. Where people are utilizing sugarcane for production of white sugar, seed, feed, chewing and also used for making gur and khandasari. The utilization levels vary from time to time. The utilization of sugarcane in India during the period from 2005-06 to 2014-15 is presented in the table-1.

Table-1 analyses the quantity of sugarcane production in India during 2005-06 to 2014-15. In the year 2005-06, the total production of sugarcane was 299324 thousand tones, out of which 59.62 percent of sugarcane was utilized for the production of white sugar, 28.90 percent was utilized for gur and khandasari and the remaining 11.49 percent of sugarcane used for seed, feed and chewing etc.. In the next year i.e. 2006-07, 59.69 percent of sugarcane was utilized for the production of white sugar, 28.85 percent was utilized for gur and khandasari and the remaining 11.46 percent of sugarcane was used for seed, feed and chewing etc.. During 2005-06 to 2012-13 years, more than 50 percent of the total production of sugarcane was utilized for production of white sugar and in the year 2012-13 it recorded 78.14 percent of the total production of sugarcane in India was utilized for production of white sugar and only 11.90 percent for seed, feed and chewing and 9.96 percent for gur and khandasari. During 2013-14 the total production of sugarcane in India was 340494 thousand tones, out of which 73.40 percent was utilized for white sugar, 11.90 percent for seed, feed and chewing etc., and the remaining 14.70 percent was utilized for gur and khandasari. But during 2014-15 the production of sugarcane decreased to 271254 thousand tones and 53.45 percent of the sugarcane was utilized for the production of white sugar of the remaining, 12 percent for seed, feed and chewing etc., and 34.55 percent was utilized for gur and khandasari.

Therefore, the analysis indicates that the utilization of sugarcane for the production of white sugar in India during 2005-2006 to 2013-14 increased. But during the year 2014-15 the utilization of sugarcane for the production of white sugar in India decreased and the utilization of sugarcane for the production of gur and khandasari and for seed, feed and chewing etc., increased.

There are few reasons which account for this limited marketing. They are:

- The purposes for which the cane is used are limited. Therefore, it does not enjoy the facility of a wide market.
- It is a seasonal crop to be harvested and marketed at a particular season.
- It is a perishable commodity. It cannot be stored beyond 24 hours after it is harvested without heavy loss. If there is delay in crushing the loss in sucrose content and juice recovery would multiply for every day's delay.

- It cannot be transported for long distances as the cost of transportation will become prohibitive.

either to a factory or to private crushers, if he has no facilities of his own for crushing. That means he will be operating in a buyers' market, and hence he is compelled to accept any price offered by the buyers.

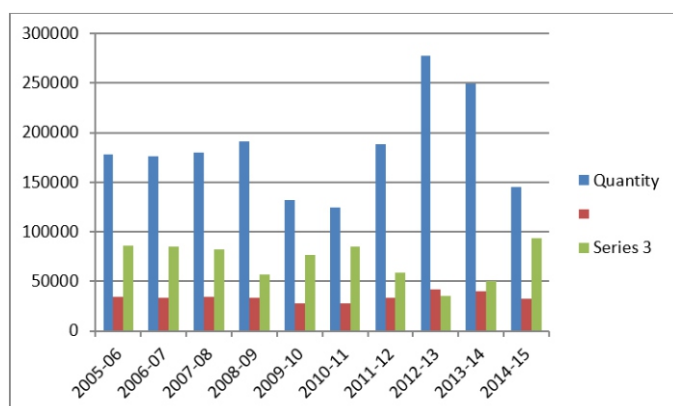
Under these circumstances the farmer has no alternative except to sell the cane

Table 1: Utilization of sugarcane for different purposes in India during 2005-2006 to 2014-15

(000 Tonnes)								
Year	Production of white sugar		Seed, feed and chewing etc.		Gur and khandsari		Total production of sugarcane	
	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage
2005-06	178449	(59.62)	34380	(11.49)	86495	(28.90)	299324	(100.0)
2006-07	176648	(59.69)	33930	(11.46)	85378	(28.85)	295956	(100.0)
2007-08	180346	(60.68)	34724	(11.68)	82138	(27.64)	297208	(100.0)
2008-09	190916	(67.80)	33524	(11.91)	57134	(20.29)	281574	(100.0)
2009-10	132511	(55.84)	28240	(11.90)	76557	(32.26)	237308	(100.0)
2010-11	124771	(52.39)	28210	(11.85)	85166	(35.76)	238147	(100.0)
2011-12	188672	(67.10)	33460	(11.90)	59046	(21.00)	281178	(100.0)
2012-13	277787	(78.14)	42307	(11.90)	35426	(9.96)	355520	(100.0)
2013-14	249906	(73.40)	40526	(11.90)	50062	(14.70)	340494	(100.0)
2014-15	144978	(53.45)	32550	(12.00)	93726	(34.55)	271254	(100.0)

Source: Indian Sugar, India Sugar Mills Association, New Delhi, April'2015

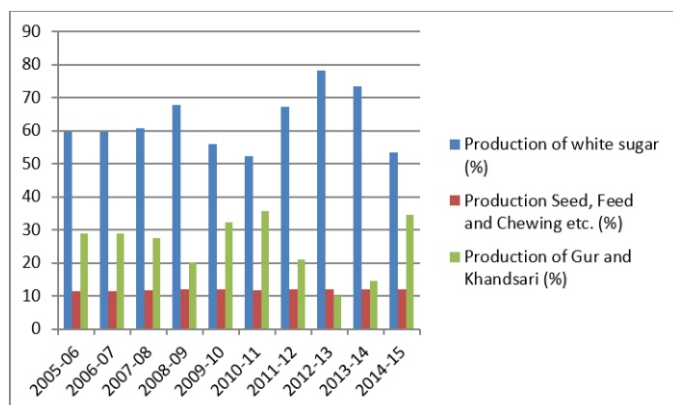
Trend analysis of Production of white sugar, Seed, Feed and chewing etc., and Gur and Khandsari during the year 2005-06 to 2014-15



Analysis:

The trend analysis shows the highest utilization of sugarcane for the production of whitesugar, seed,feed and chewing etc.and Gur &Khandsari in the year 2012-13. Where as the least utilization in the year 2009-10 & 2010-11.

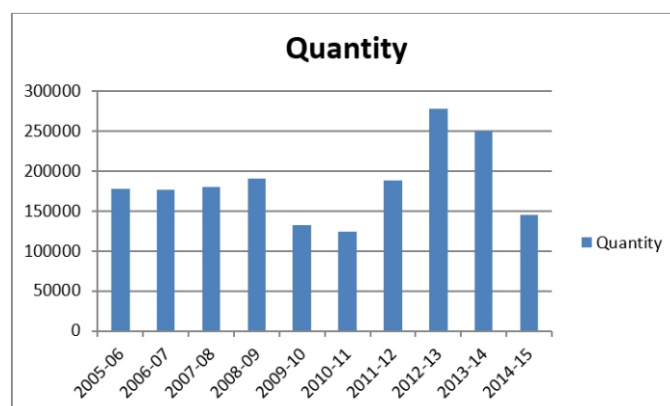
Relative trend analysis of sugarcane utilization in India during 2005-06 to 2014-15



Analysis:

The comparative analysis shows that the utilization of sugarcane for the production of whitesugar was maximum in the year 2012-13(78.14%) whereas production of seed,feed &chewing etc.was highest in the year 2014-15(12%) and production of Gur &Khandsari was highest in the year 2010-11(35.76%).

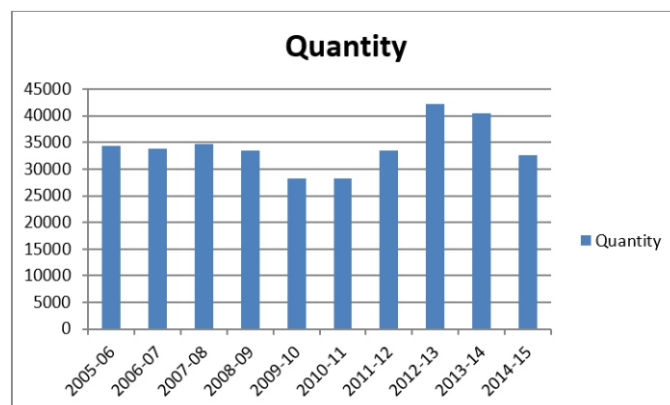
Trend analysis showing production of white sugar during the year 2005-06 to 2014-15



Analysis:

The result shows the utilization of sugarcane for the production of whitesugar was maximum in the year 2012-13.It is 277787 tons in quantity and is 78.14% of the total sugarcane production during the year 2005-06 to 2014-15.

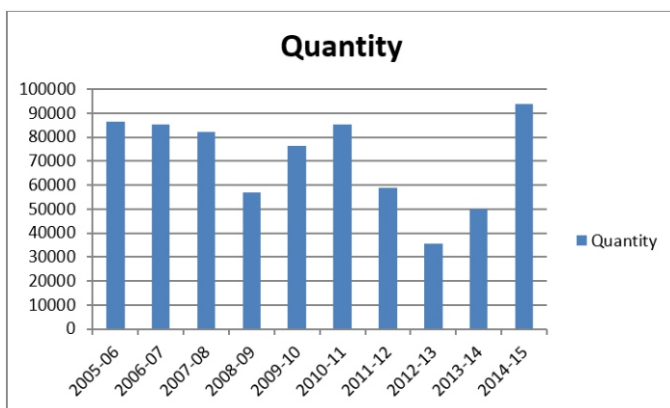
Trend analysis showing production of Seed, Feed and chewing etc. during the year 2005-06 to 2014-15



Analysis:

The result shows the utilization of sugarcane for the production of Seed,Feed &Chewing was maximum in the year 2014-15.It is 32550 tons in quantity and is 12% of the total sugarcane production during the year 2005-06 to 2014-15.

Trend analysis of Gur and Khandsari during the year 2005-06 to 2014-15

**Analysis:**

The result shows the utilization of sugarcane for the production of Gur & Khandsari was maximum in the year 2010-11. It is 85166 tons in quantity and is 35.76% of the total sugarcane production during the year 2005-06 to 2014-15.

2.3 Lack of Transport Facility:

If proper transport facilities are not available the movement of commodities to selling points will be restricted and thus the normal marketing activity will be hindered. This problem intensifies if the commodity is perishable in nature. Such commodities require quick means of transport. Though systems of cold storage have come into being in recent years to help the marketing activity of the agricultural commodities, we have not yet developed cold storage systems for the cane. Perhaps that is not possible due to the very nature of the commodity and the size of the cane produce. Even an attempt in this direction will be very expensive.

Much of the cane is transported from the farms to the factory by means of trucks, owned or hired by the factories. Sometimes the farmer also hires truck to transport his produce. In either case he is made to wait in his farm. The trucks may not arrive in time. They may arrive in time but the roads are sticky.

There may be delay in transportation resulting in high percentage of drayage of the cane at the farm itself. The farmer can solve the problem to a certain extent by using bullock carts. But here the difficulty is since the load capacity of the bullock cart is limited; the farmer may have to hire more number of bullock carts involving unnecessary additional expenditure. One practical difficulty here is all the bullock carts hired may not arrive at the farm simultaneously. Even if they arrive there may be the difficulty of loading and unloading. Another factor in addition to the problem is that of distance. If the distance between the farm and factory is long this type of transportation becomes uneconomical as it is not quick. Since the cart is open to sun, wind etc., the cane gets dried up in transit. In addition there is the likelihood of other types of losses.

Another dimension to this problem is the transport cost. The farmer will have to bear the cost himself. There may be a subsidized scheme but the subsidy paid by the factory may not even be 25 percent of the total cost of transportation. The chances are that the farmer has to bear the entire cost himself. Looking at the prevailing conditions the farmer needs proper transport system.

2.4 Loss due to dryage: "Dryage" is the reduction in the juice and sucrose content of the cane due to delayed transportation and crushing. Dryage results at more than one stage, viz.,

- at the farm,
- in transit,
- at the cane yard of the factory.

Dryage at the farm is the result of the delay in transportation. Often it so happens that the cane is cut and kept waiting for the trucks or carts to arrive. Due to non-availability of trucks or carts in time, there may be delay in loading and unloading and hence dryage.

Dryage in transport is the result of delay in the movement of the cane from the farm to the factory. It may be due to transport bottlenecks, traffic congestion on the roads, slow movements of the carts etc. Sometimes when the cart is passing through some villages, much of the cane is misused for chewing.

Dryage in the cane yard is the result of the failure of the factory authorities to take delivery of the cane for crushing immediately after it arrives at the factory gate. Sometimes heavy loads of cane may arrive at the cane yard causing dislocation in crushing schedules. As a result the cane may be kept stocked in the open yard resulting in dryage.

The delay in crushing may be due to a few other reasons such as machine breakdown, workers strike or any functional deficiency of the factory. This situation

may compel the factory authorities not to take delivery of the cane arriving at the cane yard. This also results in the loss to the farmers. If systems can be developed for better harvesting, quick transportation and immediate crushing, much of the loss which the farmer suffers can be avoided.

2. Financial Problems:

The financial problems perhaps are very critical. If the farmer is financially resourceful, some of the problems already discussed can be tackled effectively. But as it is generally known, the financial strength of an average Indian farmer is poor. Hence he will not have the capacity to face some of the problems effectively. The following are the three dimensions of the financial problem.

3.1 Inadequate finance:

Cane cultivation requires heavy amounts of finance. Unless the farmer has liquid funds at his disposal, his farm operations would not be smooth. He needs working capital for the purchase of seeds, manures and fertilizers and other farm inputs, wage payment to labour, meeting the day to day expenses of supervision and management. Unless these payments are met promptly, farm operation would be difficult.

As it is well known, the Indian farmer does not have finance of his own for the reason that his savings are limited. Quite often he may not have any savings at all. Therefore he cannot fall back on any surplus. Even if there is some surplus the farmer may be compelled to spend it for his domestic purposes. Under such a situation he has to borrow from outside and use it for agriculture.

His borrowing can be of two types:

- Institutional borrowings,
- Private borrowings.

Under Institutional borrowings he can borrow from commercial banks and co-operative institutions. Empirical data brought out by various studies indicate that the amount sanctioned by these institutions are not timely, besides being inadequate, though the interest rates are moderate. Unless the loan is timely, it does not help the farmer, leading to the crop failure.

The farmer no doubt can get quick finance from private sources. But it may be expensive on more than one count. Can a marginal farmer operating a small or marginal farm pay such high rate of interest and still survive in agriculture? That means the farmer faces dilemma of requiring finance but not being in a position to obtain it in time at moderate rates of interest or obtain it quickly with prohibitive rates of interest. The efforts on the part of the Government, co-operative sector and commercial banks to assist the farmer financially have been of no avail and hence the farmer still suffers, from inadequate finance.

3.2 Absence of quick payment by the purchaser:

Many farmers who sell their produce to the factories and private crushers do not get immediate payment and to that extent their financial viability suffers. This may also increase the cost of marketing to them in the sense that they may be compelled to make more than one trip to the factory to get payment which results in additional cost. Quite often the farmer harvests and sells the produce only to meet some family financial commitments in the expectation that he will get quick returns. But very rarely such a thing happens. The factory and the private crushers also come out with certain explanations of their own as to why they are not in a position to settle the bills quickly. Like the farmers these institutions also suffer from financial inadequacy. They may not have liquid cash to make immediate payment. They may have to borrow from outside sources which results in delayed payment. There may not be co-ordination between the operations of the farmers and the factory. In consequence only the farmer suffers. If the farmer crushers the cane for making jaggery he will face the problem of marketing. Even then a certain amount of delay is bound to occur. The net result of all these factors is that the liquid funds of the farmers will get exhausted and he is driven to the private money lenders to borrow at exorbitant rates of interest.

2.3 Price fluctuation:

Price fluctuations are quite rampant in the Indian agriculture marketing structure and hence is a big problem faced by the farmer. The prices payable to the cane at a particular recovery rate is fixed by the Government of India from season to season for various zones on the basis of recommendations of the agricultural prices commission. This is being done from time to time by amending the Sugarcane Control Order of 1966. So much the farmer is not sure of the price he will get. This throws the financial plan of the farmer to the winds. The prices fixed by the Government do not take the cost of cultivation into account. The price fixation appears to be arbitrary. If the price is fixed as it is done now, only the farmer is bound to suffer. Besides he cannot calculate in advance as to what would be his return and plan accordingly. The price fluctuation also depends upon demand for and supply of cane. Higher or lower supply of cane depends upon the seasonal conditions, availability of water, rotation of crops diversification of cane towards jaggery manufacturing etc. However, the cane supplied to sugar factories attracts the statutory price. This price fluctuates widely from year to year as can be seen from the table-2.

Statutory Minimum Price (SMP) of sugarcane in India:

Under the Sugar and Gur Control Order (1950), the Government has been fixing

the minimum prices of sugarcane to be paid to the growers with a view to ensuring a fair price to them. In November 1962, the system of linking the minimum price with the recovery of sugar from cane was introduced. The formula in vogue since then guarantees a specified minimum price of sugarcane at 8.5 percent level of recovery and provides a premium for ever 0.1 percent increase in the recovery above that level.

Minimum price of sugarcane is fixed by the Government on the basis of the recommendation of the Commission for Agricultural Costs and Prices. Besides this a Statutory Minimum Price (SMP) fixed by the Central Government, The Directorate of Sugars of each State also decides the sugarcane price to be paid to the sugarcane growers on the basis of working results of individual sugar factory. The Statutory Minimum Price (SMP) of Central Government and State Advised Price (SAP) are declared every year after end of the crushing season.

The Statutory Minimum Price (SMP) of sugarcane during the study period is presented in the table 2. The statutory minimum price of sugarcane per quintal in India during 2005-06 to 2014-15 is not very encouraging. In the year 2005-06, the minimum price of sugarcane per quintal in India was Rs. 56.10, which slowly increased year by year and reached to Rs. 81.18 in the year 2014-15. In the beginning of the study year 2005-06 the SMP per quintal price of sugarcane was Rs. 56.10 which increased slightly to Rs. 59.50 and Rs. 62.05 in the successive years 2006-07 and 2007-08 respectively. In the next year there was a significant growth with 12.0 percent in the year 2008-09 with a minimum price of Rs. 69.50 per quintal. In the next three years the growth was at 5.04, 2.05 and 6.71 percent during 2009-10, 2010-11 and 2011-12 respectively. After that the price was very discouraging which in turn indicates a poor growth of 0.94 and 1.16 percent during the years 2012-13 and 2013-14 respectively. During 2014-15 there is no change in SMP in India. This leads great discouragement of the cultivators of the sugarcane in India and the production of sugarcane fell drastically.

Hence, the analysis indicates that the statutory minimum price of sugarcane per quintal in India during the study period is not very encouraging.

Table 2: Statutory minimum price of sugarcane in India during 2005-2006 to 2014-15 (Rs. per Quintal)

Year	SMP Rs. Ps.	Percentage of increase/decrease over previous year
*2005-06	56.10	-
2006-07	59.50	(+) 6.06
2007-08	62.05	(+) 4.29
2008-09	69.50	(+) 12.0
2009-10	73.00	(+) 5.04
2010-11	74.50	(+) 2.05
2011-12	79.50	(+) 6.71
2012-13	80.25	(+) 0.94
2013-14	81.18	(+) 1.16
2014-15	81.18	-

Source: Indian Sugar, Indian Sugar Mills Association, New Delhi April'2015

Issue Price of Levy Sugar

The essential commodities Act 1935, states the responsibility of the government to fix the price for the sugar procured as levy. Such a fixation of price of levy sugar is to be made in accordance with the specific provisions in the essential commodities Act 1955, Section 3(36).

Table -3: Issue Price of Levy Sugar in India during 2003 to 2008

Year	Price Rs. Ps	Total production % increase/decrease over previous year
10.02.2003	10.50	-
01.10.2004	11.40	(+) 8.57
15.02.2005	12.00	(+) 5.26
01.03.2006	13.00	(+) 8.33
01.03.2007	13.25	(+) 1.92
01.03.2008	13.50	(+) 1.89

Source: Indian Sugar, Indian Sugar Mills Association, New Delhi,

The issue price of levy sugar by the Government of India in different dates is presented in the table-3. These levy prices of the sugar in the table do not indicate encouraging figures. On 10-02-2003, the issue price of levy sugar per Kg. in India was fixed at Rs. 10.50, which slowly increased time to time and reached to Rs. 13.50 on 01-03-2008. In the beginning of the study year 10-02-2003 per Kg. price of sugar was Rs. 10.50 which was slight increase to Rs. 11.40 and Rs. 12.00 in the next two times 01-10-2003 and 15-02-2005 respectively. In the next year there was a significant growth with 8.33 percent on 01-03-2006 with a minimum price of Rs. 13.00 per Kg. In the next two times the growth was shown 1.92 and 1.89 percent on 01-03-2007 and 01-2008 respectively.

CONCLUSION:

There has been a sharp decline in sugar production in the country. Consequently, the sugar prices plunged to such unprecedented low levels that the better lines of most of the sugar factories turned red and they were not able to pay even the cane price. Added to it, there was a sharp increase in the statutory minimum price (SMP) of most agricultural commodities. Consequently the sugarcane farmers shifted to cultivation of other remunerative crops and the sugarcane production came down. There was no Government central ever price and distribution despite higher lenses of sugar because of processing of Gur and Khandsari.

The fundamental problem of the Indian sugar Industry is that there is no relation between the price of raw material i.e., sugar cane and its finished good i.e., sugar. In some states the cane price is fixed unreasonably high by the state Government. Sugar price is regulated by the Union Government through varieties of measures including regulations of monthly release and control in international trade. Such illogical intervention of the state Government causes a wide economic dislocation in the sugar industry. In almost all the major sugar producing countries of the world the price of cane paid to the farmers depends on the realization from sugar.

Most of the problems being faced by the Indian Sugar Industry today have emanated from the fact that it is the only industry which is operating in antitheses to the liberalized economic policy adopted and followed by the country the various controls viz, in the matter of pricing, releases, packing etc to which the sugar industry is subjected to have smothered the growth of the industry. Because of these controls most of the time the sugar prices have gone below the cost of production. A liberalized economic necessitates a competitive environment and this will be possible only if the industry in completely decontrolled. Decontrol could give the industry the much needed freedom to explore the market and sell sugar, ethanol, co-generated power, press mud and other downstream products in keeping with the needs of the market sentiments and financial gains. It will make the sugar factories viable on a regular basis instead of sporadic periods of volatility. It will also make it possible to establish a more direct link between the price of sugarcane and the finished product and enable the sugar industry to be globally competitive.

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